

NADACHOWSKI, F.

140

P O L.

1205

6867034 : 689.18.013.5.007.2a

Nadachowski, F. Corrosion of Magnesite Products in Open-Hearth Furnaces
MOSCOW

"Korozja wyrobów magnetytowych w piecach stalowniczych".
Hutnik, No. 1, 1954, pp. 6-12, 6 figs., 1 tab.

Composition and properties of phases of magnesite products according to operating conditions of open-hearth furnaces. Effect of corrosion-producing factors. Penetration of oxides, and the phenomenon of "peeling" in magnesite products. Prospects of improving the quality of magnesite products made in this country from inferior quality materials and complying with the technology developed by the Metallurgical Institute (called magnesite-and-dolomite products). This new technology — 1) eliminates difficulties in the manufacture of magnesium products from low quality magnesite clinker; the CaO to SiO₂ ratio in such products corresponds, almost invariably, to monosilicate and merwinite — the most undesirable components of binding media; 2) affords the means for making use of an indigenous substitute material — stabilized dolomite; the proportion of such dolomite added must be high (up to 40 per cent). The products referred to are remarkable for their low porosity — at times below 15 per cent.

M. S. D. K.

✓ Improved method for determining the effect of carbon monoxide on fire-clay refractories. F. NADACHOWSKI. Prace Inst. Ministerstwa Hulnic, 6, 170-75 (1954); abstracted in J. Appl. Chem. (London), 5 [8] ii-189 (1955).—The efficiency of a method of determining the susceptibility of fire-clay refractories to the action of CO is reviewed on the basis of experimental data obtained since 1952. The method consists in establishing the weight increases of powder concentrates, due to the catalytic activity of iron compounds, extracted from brick in an atmosphere of CO at ~600°. The reproducibility of results was found to be good, and the time of testing (including sampling and evaluation of material) could be reduced to 50 hr. Since the resistance of fire-clay products to the damaging effect of CO depends on the activity (α) of catalytic substances ($\alpha = 100 \times$ weight increase/time of action), a classification of materials according to their susceptibility to CO activation is suggested. (A) $\alpha < 2$, (B) $\alpha 2$ to 10, (C) $\alpha > 10$. The composition, physical properties, and catalytic activity of various fire clays are summarized. A correlation between weight increases of powder concentrates and times of reaction for fire-clay refractories in blast furnaces is shown by graphs and seems to justify the suggested classification.

V.R.E.

NADACHOWSKI, FRANCISZEK.

Magnezytowe materiały ogniotrwałe. (Wyd. 1.) Stalinogrod, Wydawn. Gorniczo-Hutnicze, 1955. 207 p. (Magnesite fireproofing materials. 1st ed. illus., bibl., diagrs., graphs, index, tables)

SOURCE: East European Accessions List (EEAL), LC, Vol. 5, no. 3,
March 1956

Nadachowski, FRANZ

Dependence between the phase composition and softening temperature under load of refractory magnesia bodies. FRANZ NADACHOWSKI. *Silikatech.*, 6 [11] 473-75 (1955).—Magnesia bodies containing larger amounts of dicalcium silicates and magnesium ferrite were investigated with regard to the dependence between the theoretical equilibria data and the practical results of softening under load. Although the eutectic melt should originate at about 1350°C., very high temperatures are attained in reality. This contradiction between theory and practice disappears, however, if the Mg ferrite in the body is replaced by $MgO \cdot Al_2O_3$. This means that this phenomenon is related to the behavior of the $MgO \cdot Fe_2O_3$, which forms solid solutions with periclase at high temperatures, whereby its contact with the silicate phase and the attainment of full equilibrium is prevented; this was confirmed by microscopic examination. In normal magnesite materials, therefore, no eutectic melt is formed practically between $MgO \cdot Fe_2O_3$ and the silicate phase. By keeping the former away from the periclase, however, a softening under load could be obtained in a synthetic magnesia body with $MgO \cdot Fe_2O_3$ and $3CaO \cdot SiO_2$ near the eutectic temperature. 7 references. M.H.A.

NADACHOWSKI F.

15

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Nadachowski F. Phase Composition of Basic Refractory Materials.

"Schem fazowy zasadowych tworzyw ogniotrwałych". Cement, Waponi, Gpa, No. 7-8, 1958, pp. 163-168, 1 fig., 1 tab.

The author here groups all basic refractory materials in two classes: class I, in which the CaO: SiO₂ molar ratio is less than 2; and class II, in which the ratio is greater than 2. A diagram gives a tentative graphic representation of all variants of the phase composition of basic refractory materials, and indicates in the zero point a typical basic refractory the molar ratios of particular oxides of which are represented by the length of appropriate segments of ordinates. These ratios correspond (save in the case of CaO) to the natural amounts of the oxides most frequently met with in materials used in industry. Characteristics are given of the following basic products: magnesite, magnesite-dolomite, stabilized dolomite, magnesite-dolomite, forsterite, magnesite-forsterite, spinel and chromite-magnesite.

HADACHOWSKI, F.

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Hand

Effect of phase composition of magnesite products on the refractoriness under load. F. Hadachowski (Inst. Materiałów Ogniotrwałych, Katowice, Poland). Prace Inst. Ministerstwa Hutaństwa 8, 237-53 (1950) (English summary); cf. C.A. 50, 2942e. Below a certain (fixed) proportion of admixts., the refractoriness under load of magnesite materials is high and does not depend on the temp. of the initial liquid formation. With materials contg. greater amt., of silicates such as $3\text{CaO}\cdot\text{MgO}\cdot2\text{SiO}_2$, $2\text{CaO}\cdot\text{SiO}_2$, and $\text{CaO}\cdot\text{MgO}\cdot\text{SiO}_2$, and more than 4% of MgO the softening takes place within the eutectic range of temps., i.e. at $1400\text{-}1450^\circ$. On the other hand in the system $2\text{MgO}\cdot\text{SiO}_2\text{-MgO}\cdot\text{Al}_2\text{O}_3\text{-MgO}$ the softening takes place only at temps. exceeding 1800° . In materials contg. beside $2\text{CaO}\cdot\text{SiO}_2$ also $\text{MgO}\cdot\text{Fe}_2\text{O}_3$, refractoriness under load is, contrary to the theory, very high. Microscopic examn. indicated that eutectic melt is not formed in practice because as a result of soln. of $\text{MgO}\cdot\text{Fe}_2\text{O}_3$ in periclase there is no contact between these compds.
F. I. Hendel

RIM

MADACKOWSKI, R.

Basic Refractory Materials by Soviet Particles
Mowat, et al., p. 83, '80; *Chemical Potentialities of Basic Refractories*,
in the production of basic refractories for steel, iron and
discussed. The chemical composition of peridotite
Depending on the concentration of peridotite
decreases, the more the peridotite increases.
In this way, the properties of the refractories
of the refractories are determined. The potentialities
of basic refractories are discussed. — R. G.

Stabilization of dolomitic silicate in magnesite-dolomite products. F. Nadachowski. *Prace Inst. Hutyarskich* 10, 237-42 (1958) (English and Russian summaries). — The causes of instability (disintegration) of magnesite-dolomite products used for the construction of high-temp. furnaces were examined. N. found that repeated changes in temp. and the decompos' of the P stabilizer had no detrimental effect. The P stabilizer was decompr. only in contact with C. To produce a stable clinker, 1.5% of P_2O_5 should be added and thoroughly distributed.

L. G. Maudus

H

COUNTRY : POLAND
CATEGORY : Chemical Technology. Chemical Products and Their Applications. Ceramics. Binding Materials.
ABS. JOUR. : RZtNim., No 17, 1959, No. 51513

AUTHOR : Grylicki, A.; ~~Lukasiewicz~~
INSTITUTE : -
TITLE : Effect of Various Oxides on the Phase Composition of Basic Refractory Materials
ORIG. PUB. : "Prace Inst. Rzutu, Warszawa, 1959, No. 5, p. 117"

ABSTRACT : In the Polish Institute of Refractory Materials effects of MnO₂ (1%) addition on the phase composition of the refractory MgO + SiO₂ + Al₂O₃ + Fe₂O₃ + CaO (M-S-A-V-C) systems were investigated. Synthetic mixtures were prepared employing oxides, dried were pressed into samples and calcined for 3 times at 1300 °C (depending on the composition of a mixture) until equilibria were attained. As a result of this investigation the discontinuity of solid

*Concrete.

Card: 1/3

COUNTRY :
CATEGORY :
ABS. JOUR. : RZhKhim., No 17, 1959, No. 61513
AUTHOR :
INSTITUTE :
TITLE :
ORIG. PUB. :

ABSTRACT : solutions between B-S and FeS was established
Con'd together with the existence of 4 chemical com-
ounds: $B_2M_3S_2$, BMS , BC_2MS_3 and $B_2C_3S_4$, not des-
cribed previously. For the latter compound their
refractory properties were determined, optical
characteristics and X-ray diagrams were obtained.
The second part of this investigation was devo-
ted to the effects of A and F on phase composi-
tion of S, B; C and M mixtures. It was establis-
hed that magnesioferrite (MF) may exist simul-
taneously in all the systems B_2S , C_2S , and M_2S .

Card: 2/3

H - 33

3/3

COUNTRY : USSR
CATEGORY : Chemical technology. Chemical industry. Materials. Applications. Ceramics. Glass. Binding materials.*
ABS. JOUR. : RZhKhim., No 19, 1959, No. 68511

AUTHOR : V. V. Kostylev, P. I. Gravlikov,

ORG. FIE. : Institute of SV [?]
Silicate technik, USSR, Leningrad. 77-222

ABSTRACT : For the clarification of the effect of barium on the fired concrete articles, mixtures containing pure MgO , BaO , CaO , SiO_2 were subjected to calcination until homogeneous mixtures were obtained. This was followed by the study of their ash composition by the X-ray and microscopic examination methods. Of particular interest were the ratios of CaO + SiO_2 + SiO_3 and $2CaO$ + SiO_2 + SiO_3 . The sides of the three-component triangular

*Concrete.

Card: 1/3

CC S 77
SAPUR R
U.S.S.R.
BUDKIV, NOV., 949, 30. 1951

AUTHOR :
EDITOR :
TRANSLATE :
TYPE :
REF. BY :
FILE :
DATE :
TIME :
PUB. :
TITLE :
SUBJECT :
ABSTRACT :
CONT.

Abstract: Reporting compositions of orthosilicates. Structure, reporting compositions of orthosilicates was revealed: existence of four new compounds was revealed: $\text{BaO} \cdot \text{CaO} \cdot \text{SiO}_2$, $\text{BaO} \cdot \text{MgO} \cdot \text{SiO}_2$, $\text{BaO} \cdot \text{Al}_2\text{O}_3 \cdot \text{SiO}_2$ - BaO · MgO · SiO₂, silicic compositions and $\text{CaO} \cdot \text{MgO} \cdot \text{Al}_2\text{O}_3 \cdot \text{SiO}_2$. The compositions of the $\text{BaO} \cdot \text{SiO}_2$ - $\text{BaO} \cdot \text{SiO}_2$ compositions of the first five were determined, certain optical properties, heat resistance and certain optical properties were determined. X-rayograms of the new compounds were obtained. A possible prevention of the metacellite formation was revealed that could be accomplished by means of addition of corresponding quantities of BaO . A possible

Card:

5/3

H - 25

COUNTRY :
CATEGORY :

ABS. JOUR. : RZnKhim., No 19, 1959, No. 68511

PAGE NO. :

ORIG. PUB. :

ABSTRACT : The statement in the final resistive properties of
the silicate glass of composite articles was also
published in "A. G. S. T. E. X."

Card:

S/081/62/000/022/050/088
B180/B186

AUTHOR: Nadachowski, Franciszek

TITLE: Method of producing barium aluminate which can be used as a refractory cement

PERIODICAL: Referativnyj zhurnal. Khimiya, no. 22, 1962, 355, abstract 22K254 (Pol. pat. 45128, October 28, 1961)

TEXT: In the method under patent a mixture of commercial BaCO₃ and commercial alumina hydrate or commercial alumina in the ratio 1:1 or 2:1, is sintered at 1250-1450°C. Raw materials are used which contain ≤ 1 % Fe₂O₃ and CaO+MgO, and 2 % SiO₂. [Abstracter's note: Complete translation.]

Card 1/1

34409

S/08/62/000/002/067/007
B150/B101

15-2230

AUTHOR: Nadachowski, F.

TITLE: Production and properties of celsian products from barite

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 2, 1962, 176; abstract
2K2:6 (Prace Inst. hutn., v. 13, no. 2, 1961, 53 - 57.)

TEXT: Barite was used as an initial material to obtain refractory celsian products. The possibility was established of a synthesis of $\text{BaO} \cdot \text{Al}_2\text{O}_5 \cdot \text{SiO}_2$ at a temperature up to 1500°C . Products were prepared from the celsian chamotte obtained by using the moist pressure method with repeated calcination up to 1500°C . By introducing up to 30% of Al_2O_3 into the composition of the material, excellent resistance to heat is ensured, with a compressive strength $> 1200 \text{ kg/cm}^2$, coefficient of thermal expansion of the order of $4 \cdot 10^{-6}$, with low refractoriness (Seger cone 27) and temperature of softening point under load up to 1500°C . [Abstracter's note: Complete translation.]

Card 1/1

S/081/62/000/022/048/082
B180/B186

AUTHORS: Elsner, Karol, Mazur, Kazimierz, Nadachowski, Franciszek,
Patzek, Zofia, Pawłowski, Stanisław, Rut, Władysław,
Smalewski, Marian, Szymborski, Wacław

TITLE: Production of refractory magnesite goods

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 22, 1962, 355, abstract
22K251 (Pol. pat. 45379, February 20, 1962)

TEXT: In the method under patent, 20-40 % of the Chinese magnesite to be used is ground to a grain size of 0.1 mm with a 2-6 % addition of refractory clay from the Jaroszow bed. After this the rest of the magnesite is added, with a grain size of 0 - 2 mm; and the usual methods of molding and burning are used. [Abstracter's note: Complete translation.]

Card 1/1

NADACHOWSKI, F.

Production technology and application of new refractory materials. Epitoanyag 15 no.11:420-430 N '63.

1. Tuzalloanyagipari Intezet, Lengyelorszag.

NADACHOWSKI, Michal

One-channel amplitude analyser with constant time lag.
Nukleonika 8 no.8:577-579 '63.

1. Zaklad Elektroniki, Instytut Badan Jadrowych, Warszawa.

L 32094-66

ACC NR: AP6020642

SOURCE CODE: P0/0046/65/010/008/0535/0540

AUTHOR: Hoffman, Zbigniew; Komor, Zenon; Nadachowski, Michal; Rydzewski, Tadeusz

ORG: Department of Electronics, Institute of Nuclear Research, Swierk (Zaklad
Elektroniki, Instytut Badan Jadrowych)TITLE: Application of the 256-channel time-of-flight analyzer for measurement of
amplitude spectra

SOURCE: Nukleonika, v. 10, no. 8, 1965, 535-540

TOPIC TAGS: analog digital converter, multichannel analyzer, electromagnetic memory,
radiation counter, gamma radiation

ABSTRACT: A 256-channel time-of-flight analyzer developed in the period 1960-1962 has since undergone considerable modification, including its adaptation for analyzing pulse-height spectra. This modification was made possible by the addition of an analog-digital converter which transforms pulse height into a series of pulses 1/2 microsecond apart, the number of pulses being equal to 256 for a 100 volt input signal. The analyzer can store a spectrum in 256 channels, or in either half (128 channels) of its memory. The analyzer dead time is $(18 + 0.5N)$ microseconds where N is the number of "channels" of pulse height (128 or 256 maximum). A maximum of $2^{16}-1$ (65535) counts per channel can be stored, at which point the analyzer is automatically turned off to avoid overflow. The integral linearity is about 0.2% for 256 channels and 0.35% for 128 channels, the differential linearity is within ±2% over most of the range, and the stability was found to be within 0.1% over a

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L 32094-66

ACC NR: AP6020642

7 hour test period. The spectrum can be seen during analysis, in that each count produces a "light spot" during storage of the pulse height information. Also, an oscilloscope of the gamma-radiation from Cs 137 is reproduced; it was obtained by using this instrument. Orig. art. has: 6 figures. [NA]

SUB CODE: 09, 18 / SUBM DATE: 11Jan65 / ORIG REF: 002 / OTH REF: 003

Card 2/2 BLG

~~MADAI, A.; SHAPIRO, G.S. [translator], redaktor; KONTOVT, V.I., redaktor;~~
~~GERASIMOV, Ye.S., tekhnicheskij redaktor.~~

[Theory of flow and fracture of solids] Plastichnost' i razrushenie tverdykh tel. Perevod s angliiskogo pod red. G.S. Shapiro. Moskva, Izd-vo inostrannoi lit-ry, 1954. 647 p. (MLRA 7:12)
(Plasticity) (Strength of materials)

NADAI, Bela

Investigation of the IFE-1-type nuclear industrial desimeter.
Elelm ipar 16 no.12:36A 372 D '62.

1. Optikai Kutato Laboratorium.

NADAI, Gabor; WEISZ, Gyula

Thin-walled reinforced cement mortar constructions. Magy
ep ipar 13 no. 5: 297-303 '64.

NADALI, PETAR

3

(2)

Oleum myrti from Dalmatia. Nikola Vernazza and
Petar Nadali. Acta Pharm. Jugoslav. 2, 75-80 (1952) (German
summary).—The content of oil in *Myrtus communis* is:
fresh branches 0.34-0.45%, dry branches 0.49-0.59%, and
dry leaves 0.57-1.01%. The oil is very sol. in EtOH and
has a high ester no. V. Mihajlov.

RA

NADALI, P.; VERNAZZA, N.

Manuring the vineyards of Dalmatia with potassium fertilizers
after foliar diagnosis. Zemljiste biljka 11 no.1/3:367-370 '62

1. Institut za Jadranske kulture, Split.

NADALI, Petar (Split)

Distillation of aromatic plants in Dalmatia. Farmaceut gl Zagreb
Supplement (18) no.5:24-25 '62

1. Institute of Adriatic Plant Culture, Split.

NADALOV, N.B.; VASILENKO, S.S.; KAGANSKIY, M.G.; KAMINSKIY, D.L.;
NIKITIN, M.K.

Positron decay of Re¹⁸². Zhur. eksp. i teor. fiz. 44 no.1:35-40
Ja '63. (MIRA 16:5)

1. Fiziko-tehnicheskiy institut imeni A.F.Ioffe AN SSSR.
(Rhenium--Decay) (Positrons)

NADAL'YAK, G.

Shall we teach students, as life demands? Grazhd. av. 19 no.6:
10 Je '62. (MIRA 19:6)

SOV/110-59-1-4/28

AUTHORS: Rubchinskiy A.V. (Candidate of Technical Sciences),
Kolesnikov V.D., and Nadal'yak N.Yu. (Engineers)

TITLE: A Valve for an Ionic Frequency-changer (Ventil' dlya
ionnogo preobrazovatelya chastoty)

PERIODICAL: Vestnik Elektropromyshlennosti, 1959, Nr 1, pp 11-14 (USSR)

ABSTRACT: Ionic frequency-changers offer advantages as high-frequency generators for the inductive heat-treatment of metals. They are efficient, light, and easily controlled. Ignitrons type IVS-100/15000, developed under the guidance of T.A. Suyetin, were tested for their suitability in frequency-changer circuits. A single-phase frequency-changer test circuit with power-frequency supplies, as shown in Fig 1, gave conditions approximating to those of service. The tests were made with an independent grid-control circuit because in this case the frequency developed depends upon a separate generator and is independent of the operating conditions of the frequency-changer and the load circuit characteristics. The voltage impulses required to ignite valves of this type at some hundreds of volts are several tens of amperes. To obtain such impulses at frequencies between a few hundreds and some thousands of cycles per second, a grid-control

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A Valve for an Ionic Frequency-Changer SOV/110-59-1-4/28

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circuit was made up consisting of an oscillator and two-channel power amplifier based on hydrogen thyratrons type TGI-400. The oscillator frequency was produced by a symmetrical multi-vibrator. The tests established that when the mean value of the anode currents was greater than 20 - 30 A the auxiliary discharge of the ignitron was extinguished. In this particular case the best remedy was to strap the valve cathodes to give a 2-anode ignitron. Then the auxiliary discharge is maintained because the cathode current passes continuously throughout the entire positive half-cycle. Thus ignitrons type IVS-100/15000 were converted to 2-anode ignitrons type IPCh-1, and the tests were made on two valves of this type with different types of grids and filters. The same single-phase frequency-changer circuit was used for the tests. The anodes were supplied from a transformer of 1,130 kVA, the phase voltage could range from 400 ~ 4500 V. The time required to restore the control by the grids was determined at a voltage of 400 V. Determinations were made of the load frequency at which there were no conversion failures for at least 6 ~ 10 minutes. It was found that

A Valve for an Ionic Frequency-Changer SOV/110-59-1-4/28

if this time could be run without failure, and conditions remained constant, the valve could operate satisfactorily for several hours. However, it is a laborious matter to determine the frequency that can be maintained without failure for such a time and it was accordingly useful, for many purposes, to determine the frequency at which about 100 failures of conversion occurred per minute. From measurements of the upper and lower operating frequency limits of the valve, calculations were made of the time required to restore control by the grids. This time is plotted as a function of cooling-water temperature for currents of 70 and 120 A in Fig 2. The curves are briefly discussed. The breakdown strength of the valves was determined with the circuit of Fig 1 and supply voltages up to 4500 V. At a voltage of 3000 V and a current of 130 A, rapid changes in the anode voltages at the instant of commutation caused severe overvoltages because of oscillation in the circuit. The oscillatory circuits contained the inductance of the anode resistances and the capacitance of the connecting cables. The consequent 5 - 7 fold overvoltages occasionally cause breakdown in

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A Valve for an Ionic Frequency-Changer SOV/110-59-1-4/28

both forward and reverse directions. This trouble was overcome by connecting an inductance of about 100 micro Henries in series with the anodes. It was found that the valve could operate as a single-phase frequency-changer and also under regulated conditions at a voltage of 4500 v. The possibility of using igniter control is a further advantage of this type of valve, affording regulation of the output of the frequency-changer without having a complicated grid-control system. The valves operated with an r.m.s. inverse voltage of 4500 without breakdown and as the inverse voltage is four or five times the phase voltage, it is safe to assume a phase voltage of 1 kV. With a current of 300 A on three valves this gives a frequency-changer output of 350 kW. Operating experience with valves type IVS 100/15000 with inverse voltages up to 15 kV gives reason to suppose that valves type IPC can

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A Valve for an Ionic Frequency-Changer SOV/110-59-1-4/28

operate reliably in a frequency-changer with a phase voltage of 2 - 3 kV and can be used for an installation with an output of 600 - 800 kW.

There are 2 figures and 1 Soviet reference.

SUBMITTED: July 25, 1958

Card 5/5

MASLENNIKOV, N.M., kand.tekhn.nauk; NADAL'YAK, N.Yu., inzh.; KOLESNIKOV,
V.D., inzh.

A comparison of methods for measuring the voltage drop in
the arc of mercury rectifiers. Vest. elektroprom. 33 no.11:
55-58 N '62. (MIRA 15:11)
(Mercury-arc rectifiers)

A. MURKIN, P.V., 1940-1945, "Soviet
agent," 1940-1945 (A. M. SOLODOVNIKOV, Soviet Espion
Agent, 1940-1945 Tech), "Soviet Agent," 1940-1945

more info

NADAL'YAK, P.A.

Developments in single bucket excavators. Mast.ugl. 8 no.12:
(MIRA 13:4)
22-23 D '59.
(Strip mining) (Excavating machinery)

NADAL'YAK, P.A.

Development of incompletely rotating railroad excavators. Trudy Inst.
ist. est. i tekhn. 21:104-116 '59. (MIRA 13:3)
(Excavating machinery)

NADAL'YAK, Platon Aleksandrovich; DOMBROVSKIY, N.G., otv.red.; KLENNIKOV, V.M., red.izd-va; GOLUB', S.P., tekhn.red.

[Single-bucket excavator; outline of the development of single-bucket excavators for open excavations] Odnokovshovye ekskavatory; ocherk rasvitiia odnokovshovykh ekskavatorov dlia otkrytykh gornykh rabot. Moskva, Izd-vo Akad.nauk SSSR, 1960. 70 p.

(MIRA 13:7)

(Excavating machinery)

NADAL'YAK, P.A.

Development of single-bucket excavators at the end of the 19th and
beginning of the 20th century. Trudy Inst.ist.est.i tekh. 29:
135-164 '60. (MIRA 13:6)
(Excavating machinery)

NADAL'YAK, P.A.

Basic stages in the development of bucket excavators. Trudy Inst.
ist.est.i tekhn. 38:11-33 '61. (MIRA 14:5)
(Excavating machinery)

NADAL'YAK, Ye. A.

"Motor-Defensive Conditioned Reflexes in Cattle Based on Acoustic Analysors."
Cand Biol Sci, All-Union Inst of Experimental Veterinary Sciences, Moscow, 1954.
(RZh Biol, No 1, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher
Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

USSR / Farm Animals. Cattle.

Q-2

Abs Jour: Ref Zhur-Biol., No 12, 1958, 54730.

Author : Nadal'yak Ye. A.

Inst : Not given.

Title : The Physiological Characteristics of the Organ
of Hearing of Cattle.

Orig Pub: Tr. Vses. in-ta eksperim. veterinarii, 1957, 20,
261-269.

Abstract: No abstract.

Card 1/1

NADARAYA, E. H.

On the χ^2 criterion. Trudy Vych. tsentra AN Cruz. SSR 2:241-244
'62. (MIRA 16:1)
(Mathematical statistics)

ACCESSION NR: AP4011471

S/0251/63/032/002/0277/0280

AUTHOR: Nadaraya, E. A.

TITLE: Estimation of densities of random variables

SOURCE: AN GruzSSR. Soobshcheniya, v. 32, no. 2, 1963, 277-280

TOPIC TAGS: estimation, density, convergence, characteristic function, empirical distribution function, consistent estimate, uniformly consistent estimate

ABSTRACT: Let

$$f_n(x) = \frac{1}{n h(n)} \sum_{i=1}^n K\left(\frac{x - x_i}{h(n)}\right), \quad (1)$$

where x_1, \dots, x_n are independent random variables with density f . Suppose

$$K(x) < C < \infty, \quad (2)$$

$$\lim_{x \rightarrow \pm \infty} |x K(x)| = 0. \quad (3)$$

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ACCESSION NR: AP4011471

Let

$$W(X_n) = \int_{-\infty}^{\infty} |f_n(x) - f(x)| \varphi(x) dx, \quad (4)$$

where φ is a positive integrable function. The author proves: Theorem 1:

If $\sum_{n=1}^{\infty} n^{-2} h(n)^{-2}$ converges then $W(X_n) \rightarrow 0$ with probability 1. Theorem 2:

If also the characteristic function ψ is absolutely continuous and f is uniformly continuous and $\sum_{n=1}^{\infty} n^{-2} h(n)^{-4}$ converges then

$$G_n = \sup_{-\infty < x < \infty} |f_n(x) - f(x)| \rightarrow 0 \quad (5)$$

A theorem is proved concerning convergence of the sample mode, and the case

$$K(x) = \begin{cases} 1/2, & |x| < 1 \\ 0, & |x| > 1 \end{cases} \quad (6)$$

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is handled separately. Orig. art. has: 12 formulas.

ASSOCIATION: Akademiya nauk SSSR Matematicheskiy institut im. V. A. Steklova,
Moskva (Academy of Sciences SSSR, Mathematical Institute)

SUBMITTED: 00

DATE ACQ: 10Feb64

ENCL: 00

SUB CODE: MM

NO REF Sov: 001

OTHER: 002

Card 3/3

NADARAYA, E.A. (Tbilisi)

Estimating a regression. Teor. veroiat. i ee prim. 9 no.1:
157-159 '64. (MIRA 17:4)

"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R001135910014-6

WILBER Y., 1900-1971.

The New York, NY
The prim. P. 1971

Material of the following type is included:

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R001135910014-6"

NADARAYA, E.A.

Estimation of a revolution component. Sent. AN Gruz. 179
no.19-24 Ap'64

1. AN Gruzinskij "R. Vychislitel'nyy tsentr" Tsentral'no-

"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R001135910014-6

NADA 1971, Fe. 6.

parametric estimates of a regression curve. Trudy Vych.
Institut. 4N Gruz. SSR 5, 56-68 '65. (MIRA 18:9)

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R001135910014-6"

"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R001135910014-6

• Impariment, and all other information available on
and regeneration of the Soviet economy. (Soviet-21)

• Current Soviet economic policy, and its effect.

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R001135910014-6"

NADARAYA, G. B.

Nadaraya, G. B.: "Protection of citrus fruit against frost", Byulleten' Vsesoyuz. nauch.-issled. in-ta chaya i subtrop. kul'tur, 1942, No. 3, p. 38-52.

SO: U-3042, 11 March 53, (Letopis 'nykh Statey, No. 10, 1949).

DSSE/Agriculture
Crop Rotation
Soils

Sep/05/14
"Increasing the Winter-Resistance of the Lemon by Influencing the Water and Heat Regime of the Soil," G. B. Madaraya, Cand. Agr. Sci., Affiliado of the Soil Res. Inst. of Iba Ind. and Subtropical Crops, 17 pp. "Agrobiol" No 5

Under plantation conditions, the lemon growth and lowers, leguminous crop rotation impedes the hilly part of winter-resistance of the Black-Sea shore. It should be used as preliminary preparation in

DSSE/Agriculture (Contd)

Planting citrus trees. Mulching until Aug is affected upon the water and heat regime has a positive effect upon the soil.

TL61/09

60/4922

MADRASAYA, G. B.

USSR/Cultivated Plants - Subtropical. Tropical.

H.

Abz Jour : Ref Zhur - Ikol., № 10, 1953, 44356

Author : Nadaraya, G.B., Popovlev, N.V.

Inst : All-Union Institute for Trop. and Subtropical Cultures.

Title : On the Problem of the Creeping Culture of the Lemon and
of the Orange.

Orl Pub : Byul. Vses. n.-i. in-ta chaya i subtr. kul'tur, 1957,
No 1, 108-114, 109-115

Abstract : The known methods of protecting lemons and oranges grown
in bush form on the Black Sea Coastal zone of Caucasus
(filling, covering, warming) do not guarantee this. Vari-
eties from the serious winter damage. The Institute's affili-
ates of the Institute recommends growing lemon and orange
in the ground-cover form with the use of group cover-
ings with three-layer mazze. This method is secure.

CONT 1 '2

KHIDASHELI, A.N.; NADARAYA, G.B.; LOMIYA, Ya.N.

Experimental heating of lemon trees with briquets burning without
flame and smoke under gauze coverings. Biul.VNIICHiSK no.2:94-106
'57. (MIRA 15:5)

(Georgia--Lemon) (Frost protection)

GULISASHVILI, B.G.; NADARAYA, V.L.

Studying the rate of hydraulic transport of shavings by pipeline
Stroi.truboprov. 9 no.11:14 N '64. (MIRA 18:2)

1. Nauchno-issledovatel'skiy institut lesnoy promyshlennosti,
Tbilisi.

NADAREYSHVILI, A. V. --

"The Petroleum-Yielding Properties of Sand Under Conditions of Gravitational Seepage." Cand Tech Sci, Inst of Petroleum, Acad Sci USSR, 28 Oct 54. (V.I., 12 Oct 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (10)

SO: Sum No. 481, 5 May 55

NADAREYSHVILI, A.V.

Effect of coal seam moisture on gas emission. Ugol' 33 no. 5:37
My '58. (MIRA 11:5)
(Mine gases)

NADAREYSVILI, A. E.

"Influence of the Central Nervous System on Tumors" a report prepared at Sukhumi
Medico-Biological Station, AMS USSR, 1954.

So: Review of Eastern Medical Sciences, Munich, No. 2, 1956.

NADAREYSHVILI, A.Ye. (Sukhumi)

Influence of malignant neoplasma on the motor activity of rabbits.
Pat. fiziol. i eksp. terap. 4 no.3:49-51 My-Je '60. (MIRA 13:7)

1. Iz laboratorii eksperimental'noy onkologii Instituta eksperimental'noy patologii i terapii AMN SSSR (dir. I.A. Utkin, nauchnyy rukovoditel' - deystvitelel'nyy chlen AMN SSSR prof. N.N. Petrof).
(CANCER) (CONDITIONED RESPONSE) (ANIMAL LOCOMOTION)

NADAREYSHVILI, A.Ye.

Innervation of viral papilloma of rabbits. Biul. eksp. biol. i
med. 50 no.7:94-99 Jl '60. (MIRA 14:5)

1. Iz laboratorii eksperimental'noy onkologii Instituta eksperimental'noy
patologii i terapii (dir. B.A.Lapin) AMN SSSR i laboratorii nevrologi-
tologii (zav. - doktor biologicheskikh nauk Ye.K.Plechkova) Instituta
normal'noy i patologicheskoy fiziologii (dir. - deystvitel'nyy chlen
AMN SSSR V.N.Chernikovskiy) AMN SSSR, Moskva. Predstavlena
deystvitel'nym chlenom AMN SSSR V.V.Parinym.
(TUMORS—INNERVATION)

NADAREYSHVILI, A.Ye.

Morphological changes in the intervertebral ganglia and spinal cord
in rabbits during the development of Shopne's viral papilloma.
Biul. ekspl. biol. i med. 50 no.9:123-127 S '60. (MIRA 13-11)

1. Iz laboratorii eksperimental'noy onkologii Instituta eksperimental'noy
patologii i terapii (dir. B.A.Lapin) i laboratorii nevrogistologii
(zav. - doktor biologicheskikh nauk Ye.K.Plechkova) Instituta
normal'noy i patologicheskoy fiziologii (dir. - deystvitel'nyy
chlen AMN SSSR V.N. Chernigovskiy) AMN SSSR, Moskva.
(TUMORS) (SPINAL CORD) (NERVOUS SYSTEM, SYMPATHETIC)

NADAREYSHVILI, A. Ye. Cand Med Sci -- "On the problem of the state of the nervous system of rabbits in development of ^{the} viral Shope papilloma." Sukhumi, 1961 (Acad Med Sci USSR). (KL, 4-61, 210)

-365-

NADAREYSIVILLI, A. Ye.

Change in the higher nervous activity in rabbits under conditions
of growth and malignant degeneration of a virus papilloma. Zhur.
vys. nerv. deiat. 11 no.4:742-745 Jl-Ag '61. (MIRA 15:2)

1. Laboratory of Experimental Oncology, Institute of Experimental
Pathology and Therapy, U.S.S.R. Academy of Medical Sciences, Sukhumi.
(VIRUS DISEASES) (SKIN CANCER)
(NERVOUS SYSTEM) (CONDITIONED RESPONSE)

NADAREYSHVILI, A.Ye.

Transplantable strain of Shope rabbit carcinoma. Biul. ekspr.
biol. i med. 53 no.5:119-123 My '62. (MIRA 15:7)

1. Iz laboratorii eksperimental'noy onkologii (nauchnyy rukovoditel' - deystvitel'nyy chlen AMN SSSR L.A. Zil'ber) Instituta eksperimental'noy patologii i terapii (dir. - doktor med. nauk B.A. Lapin), AMN SSSR, Sukhumi. Predstavlena deystvitel'nym chlenom AMN SSSR L.A. Zil'berom.
(CANCER)

NADAREYSHVILI, A.Ye.; ZANTARIYA, G. (Sukhumi)

Experiments on homologous transplantation of tumors in monkeys.
Arkh. pat. 25 no.7:32-37 '63 (MIRA 16:12)

1. Iz laboratorii eksperimental'noy onkologii (nauchnyy rukovoditel' - prof. L.A. Zil'ber) Instituta eksperimental'noy patologii i terapii AMN SSSR (dir. - prof. B.A. Lapin).

NADAREYSHVILI, D.P.; LAVRIK, G.F.; KAMYNIN, V.I.

Work practices of the V.N.Konov brigade in a longwall equipped
with a UKR-1 cutter-loader. Ugol' 40 no.3:13-14 Mr '65.

(MIRA 18:4)

1. Normativno-issledovatel'skaya stantsiya tresta Krasnoluchugol'.

NADAREYSVILI, G.A.

Causalgie in tibes i orsalis. Zhur. nevr. i psikh. 54 no.8:659
Ag '54. (MIRA 7:9)

1. Klinika nervnykh zabolеваний pediatriceskogo i sanitarno-gigiyenicheskogo fakul'tetov na baze otdeleniy nervnykh zabolеваний 1-y gorodskoy bol'nitsy Tbilisi.

(NEURALGIA, etiology and pathogenesis,
spinal lesions)

(SPINE, diseases,
causing neuralgia)

NADAREYSHVILLI, G.P.

Ultrasonic method of testing the strength of concrete. Soob. AN Gruz.
SSR 19 no. 4:467-472 O '57. (MIRA 11:5)

1. Institut stroitel'nogo dela AN GruzSSR. Predstavleno chlenom-
korrespondentom AN GruzSSR O.D. Oniashvili.
(Concrete) (Strength of materials)
(Ultrasonic waves--Industrial applications)

NADAREYSHVILI, G.F.

Testing concrete under load with pulsed ultrasonics. Soob. AN Gruz.
SSR 19 no.5:577-582 N '57. (MIRA 11:6)

1. Institut stroitel'nogo dela AN GruzSSR. Predstavleno chlenom-
korrespondentom AN O.D. Oniashvili.
(Ultrasonic testing) (Concrete--Testing)

NADAREYSHVILI, G. F., Cand Tech Sci -- (diss) "Ultrasonic impulsive method of studying concrete and reinforced concrete in constructions." Tbilisi, Pub House Acad Sci Georgian SSR, 1958. 20 pp with ills (Acad Sci Georgian SSR, Inst of Construction), 100 copies (KL, 15-58, 115)

- 3 ? -

VAYNSHTOK, I.S.; NADAREYSHVILI, G.F.; RASTORGUEV, B.P.

Ultrasonic pulse devices for studying concrete. Sbor. trud.
NIIZHelezbetona no.2:68-80 '59. (MIRA 15:1)
(Ultrasonic waves—Industrial applications)
(Concrete—Testing)

GORDON, S.S.: ZASHCHUK, I.V.; NADAREYSHVILI, G.F.

Can ultrasonic testing be used in evaluating the strength of
concrete. Avt.dor. 23 no.2:13-15 F '60.
(MIRA 13:5)

(Concrete--Testing'
(Ultrasonic waves--Industrial application)

NADAREYSHVILI, G.N.

Suturing the fallopian tubes with a mechanical suture. Akush. i
gig. 33 no.2:46-49 Mr-Apr '56. (MLRA 9:?)

1. Iz eksperimental'noy khirurgicheskoy laboratorii l-y gorodskoy
bol'nitsay imeni prof. Ostroumova, Sukhumi (rukovoditel' - laureat
Stalinskoy premii M.G.Akhalaya)
(FALLOPINA TUBES, surg.
mechanical suture)

NADAREISHVILI, G.N., Cand. Med. Sci. -- (diss) "On the
problem of the surgical treatment of sterility by the
sewing of the Fallopian tubes by mechanical suture."
(experimental observations)." Tbilisi, 1958, "in
^{drawings} with ~~sketches~~ (Tbilisi State Med Inst) 1.0 copies
KL, 2-4, 13(1)

- 122 -

NADAREYSHVILI, G.N.

Case of gigantic hypernephroma of the kidney in a young boy.
Sbor. trud. Med. nauch. ob-vo Abkh. 2:247-249 '59. (MIRA 14:1C)

1. Iz khirurgicheskogo otdeleniya Respublikanskoy bol'nitsy imeni
A.A.Ostromova Ministerstva zdravookhraneniya Abkhazskoy ASSR
(zav. otdeleniyem - doktor med.nauk S.Ya.Arshba, glavnnyy vrach
G.N.Nadareyshvili).

(KIDNEYS--TUMORS)

NADAREYSHVILI, G.N.

Gastrojejunoplasty using part of the stomach. Eksper. khir. i
anest. 8 no.4:22 Jl-Ag '63. (MIRA 17:5)

1. Khirurgicheskoye otdeleniye (zaveduyushchiy G.N. Nadareyshvili)
Respublikanskoy bol'nitsy (glavnnyy vrach V.B. Katsiya) Abkhazskoy
ASSR.

NADAREISHVILI, G.N., kand. med. nauk (Sukhumi, ul. Pushkina, 6)

Noble's operation in the treatment of obstructive adhesions.
Vest. khir. 92 no.2:117 F '64. (MEPA 17:9)

1. Iz khirurgicheskogo otdeleniya (zav. G.N. Nadareishvili)
Sukhumskoy respublikanskoy bol'nitsy imeni prof. A.A. Ostroumova
(glavnnyy vrach - V.M. Tatsiya) Ministerstva zdravookhraneniya
Abkhazskoy ASSR.

NADAREYSHVILI, K.Sh.

Changes in some unconditioned vascular reflexes during the action of
X rays. Trudy Inst. fiziol. AN Gruz. SSR 12:199-218 '61.
(MLA 15:2)

(X RAYS—PHYSIOLOGICAL EFFECT)
(BLOOD PRESSURE)

NADAREYSHVILLI, K.Sh.

Effect of total external irradiation with ionizing rays on the
bioelectric activity of the heart. Trudy Inst. fiziol. AN Gruz.
SSR 12:229-240 '61. (MIR 15:2)
(X RAYS—PHYSIOLOGICAL EFFECT) (HEART)
(ELECTROPHYSIOLOGY)

NADAREYSHVILI, K.Sh.

Methods for electronic pneumography, plethysmography and blood pressure registration. Fiziol. zhur. 47 no.11:1432-1434 N '61.
(MIRA 14:11)

1. From the Georgian S.S.R. Academy of Sciences Institute of Physiology, Tbilisi.
(PLETHYSMOGRAPHY) (BLOOD PRESSURE)
(RESPIROMETER)

BR

ACCESSION NR: AR4027241

8/0299/64/000/002/P068/P068

SOURCE: RZh. Biologiya, Abs. 2P432

AUTHOR: Nadareyshvili, K. Sh.

TITLE: The direct response of the cardiovascular system of animals to the external effect of ionizing radiation

CITED SOURCE: Tr. In-ta fiziol. AN GruzSSR, v. 13, 1963, 219-236

TOPIC TAGS: radiation, ionizing radiation, radiation sickness, cardiovascular system, blood pressure, respiration, electrocardiography

TRANSLATION: The blood pressure (common carotid artery, circle of Willis and external jugular vein), respiration and EKG were measured in unanesthetized rabbits subjected to X-irradiation in acute experiments. General or local irradiation of various areas of the rabbit body produced direct responses in the cardiovascular system and respiration. The character of these responses was determined by the localization of the effect and the dosage. The response of the vascular system was expressed in dilatation of the vessels, although the

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cerebral vessels underwent contraction. The integral response of the general arterial blood pressure was depressive or biphasic. The threshold dose for the appearance of the vascular response varied greatly. With an increase in the number of exposures, the threshold increased sharply until disappearance of the response even at maximal dosage. After adaptation to small doses, a further rapid increase gave a repeated but weakly pronounced direct response. The latent response period for suprathreshold radiation doses fluctuated from 0.2 to 0.8 seconds. The length of irradiation necessary for the appearance of a direct response was no more than 8-10 seconds. A response could be observed repeatedly if the interval between exposures was not less than 3-5 minutes. With a decrease in the interval, the response weakened or disappeared completely. After a 1-hr. rest the response appeared again, but only if the total dose of total-body irradiation did not exceed 150-200r. With local irradiation, the response disappeared when the total dose reached 2000-2500r. The opinion is expressed that the direct responses are an integral expression of reflex and humoral shifts in answer to changes in all the links of the vital processes, resulting from ionization and formation of biologically active substances which cause partial depolarization of the synaptic formations and disruption of the internal equilibrium of metabolic and functional activity. The organism responds to these changes by mobilization of the nervous and humoral mechanisms directed toward

2/3

Card

ACCESSION NR: AR4027241

the maintenance of the stability of the internal milieu and the establishment
of a new level of interrelationships in the hemostatic apparatus. V. Kozlov

DATE ACQ: 14Feb64

SUB CODE: LS

ENCL: 00

3/3

Card

NADAREYSHVILI, K. Sh.; SANEBLIZE, O.J.

Bridge circuits for electric recording of blood pressure,
respiration, and muscular contraction. Trudy Inst. fiziol.
AN Cruz. SSR 10:249-252 '53. (MELA 17.6,

NADAREYSHVILI, K.Sh.

Role of the regional arteries of the brain in the adaptive
functions of the cerebral blood circulation. Soob. AN Gruz.
SSR 30 no.1:91-98 Ja '63. (MIRA 17:1)

1. Institut fiziologii AN Gruzinskoy SSR, Tbilisi. Predstavleno
akademikom I.S. Beritashvili.

X

S/251/63/030/002/003/003
D296/D308

AUTHOR: Nadareyshvili, K. Sh.

TITLE: The irritant action of ionizing radiation

PERIODICAL: Akademiya nauk Gruzinskoy SSR, Soobshcheniya,
v. 30, no. 2, 1963, 213-220

TEXT: Receptors allowing perception of ionizing radiation are not known to exist in the animal body. Several authors, nevertheless, report defense reactions and even the formation of conditioned reflexes based upon radiation. In experiments carried out on 18 rabbits without narcosis, the author showed that ionizing radiation can serve as typical stimulus to various physiological functions. The rabbits were exposed to radiation in plastic cages by means of a PYT-11 (RUT-11) generator. The influence of light was to some extent excluded by preliminary adaptation to the bright light in the cage and in others by enucleation. The acoustic factor was excluded by running the

Card 1/3

S/251/63/030/002/003/003
D296/D308

The irritant action...

generator motor for a while before actual radiation was generated. 3 - 5 seconds after the short periods of exposure (7 - 12 sec) the animals' skins were gently stimulated by an electrical coil inductor. The control animals were subjected to the same procedure but were protected against radiation by means of lead plates. The blood pressure and respiration were recorded by means of cannulas inserted into the common carotid artery and the trachea respectively. On the first occasions, radiation exerted no appreciable influence upon blood pressure and respiration, but stimulation of the skin led to a rise in the blood pressure and in the frequency and intensity of respiration. After 10 - 14 times, radiation alone produced the same effect. Unlike other authors, who had used ionizing radiation as the unconditioned stimulus and other factors such as saccharine as the conditioned stimulus, the author applied electrical stimulation of the skin as the unconditioned stimulus and radiation as the conditioned stimulus. It is assumed that the effect of radiation is based on various vegetative functions, e.g., changes

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S/251/63/030/002/003/003
D296/D308

The irritant action...

in the intestinal cholinergic nerve endings. Not only the retina is involved, as the same effects could be achieved after enucleation of the eyes. Large doses, such as 50r in case of total body radiation and 1000r in cases of exposure of the isolated head, led to full suppression of the conditioned reflex.

ASSOCIATION: Akademiya nauk Gruzinskoy SSR, Institut fiziologii, Tbilisi (Academy of Sciences of the Georgian SSR, Institute of Physiology, Tbilisi)

PRESENTED: January 20, 1962, by I. S. Beritashvili,
Academician

SUBMITTED: January 20, 1962

Card 3/3

NADAREYSHVILI, L.I., SOLODOVA, T.I.

Study of supermolecular structures of gutta-percha.

Report presented at the 13th Conference on high-molecular compounds
Moscow, 8-11 Oct 62

ACCESSION NR: AP4009161

S/0190/64/006/001/0165/0168

AUTHORS: Kargin, V. A.; Sogolova, T. I.; Nadareyshvili, L. I.

TITLE: Investigation of supermolecular structure effect on mechanical properties of crystalline polymers 1. Production of various supermolecular structures during formation of gutta-percha films and study of their mechanical properties

SOURCE: Vy*okomolekulyarny*ye soyedineniya, v. 6, no. 1, 1964, 165-168

TOPIC TAGS: supermolecular structure , gutta percha film, crystalline polymer, melt , optical microscope, mechanical property

ABSTRACT: Conditions for production of films with various supermolecular structures have been studied. Films with varying mechanical properties can be produced from the same crystalline polymer. The gutta-percha test films were produced both from melts and solutions, using as solvents: benzol, CCl_4 , and tetrachloroethane. The structure of the films was investigated under the optical microscope MIM-8M and MIN-8. The mechanical properties of these films have been shown to depend upon their supermolecular structure. It is stressed that relations between mechanical properties and the nature of the supermolecular structure can be established most effectively by varying only one of the factors determining the
Card 1/2

ACCESSION NR: AP4009161

structuration process (temperature, solvent species, time of evaporation of the solvent, or cooling of the melt, etc.), all other parameters being kept strictly constant. Orig. art. has: 7 figures and 2 tables.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova (Physicochemical Institute)

SUBMITTED: 14Nov62 DATE ACQ: 10Feb64 ENCL: 00

SUB CODE: PH NO REF SOV: 007 OTHER: 004

Card 2/2

ACCESSION NR: AP4009162

S/0190/64/006/001/0169/0173

AUTHOR: Kargin, V. A.; Sogolova, T. I.; Nadareyshvili, L. I.

TITLE: Investigation of the effect of supermolecular structure on the mechanical properties of crystalline polymers. 2. Nature of spherulite structure breakdown and mechanical properties on repeated gutta-percha film deformation

SOURCE: Vy'sokomolekulyarnye soyedineniya, v. 6, no. 1, 1964,
169-173

TOPIC TAGS: spherulite structure, repeated deformation, gutta percha film, supermolecular structure, supermolecular stress, supermolecular strain, film deformation

ABSTRACT: The character of the spherulite-like structure breakdown of gutta-percha films by repeated deformation has been investigated under microscope MIM-8. It is shown that mechanical properties of gutta-percha films may be changed over wide ranges by repeated deformation in mutually perpendicular directions. The supermolecular

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ACCESSION NR: AP4009162

structure of gutta-percha films changes after the first stretching, as seen from corresponding experimental stress-strain curves. It is shown that recovery of the initial supermolecular structures by heating the deformed films in nitrogen at 60C for 1 hr makes it possible to obtain gutta-percha with practically identical mechanical properties as those of the initial films. Orig. art. has: 5 figures and 2 tables.

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova
(Physicochemical Institute),

SUBMITTED: 14Nov62 DATE ACQ: 10Feb64 ENCL: 00

SUB CODE: MT,SS NO REF Sov: 002 OTHER: 000

Card 2/2

KARGIN, V.A.; SOGOLOVA, T.I.; NADAREYSHVILI, L.I.

Supermolecular structures in films of isotactic polypropylene
and their mechanical properties. Vysokom. soed. 6 no.7:1272-
1274 Jl '64
(MIRA 18:2)

1. Fiziko-khimicheskiy institut imeni Karpova.

ACCESSION NR: AP4043778

S/0190/64/006/008/1407/1410

AUTHOR: Kargin, V. A., Sogolova, T. I., Nadareyshvili, L. I.

TITLE: Effects of the spherulite structure breakdown pattern on the mechanical properties of isotactic polypropylene in a broad temperature range

SOURCE: Vy'sokomolekulyarnye soyedineniya, v. 6, no. 8, 1964, 1407-1410

TOPIC TAGS: polypropylene, isotactic polypropylene, polypropylene film, spherulite, spherulite breakdown, polymer mechanical property, polymer structure

ABSTRACT: A powdered isotactic polypropylene containing 88% of the isotactic fraction, 5% of a low-molecular fraction and 7% of the atactic fraction, molten at 180°C, was gradually cooled to 80°C in the course of 1 hr. during which films, 40-100 μ thick, with a spherulite structure composed of ~100 μ grains were prepared to investigate the relationship between the mechanical properties of the material and the condition of the spherulite structure. Changes in the spherulite structure were examined with a MIN-8 optical microscope in a series of tests, conducted at 20, 50, 70, 120 and 140°C, in which film samples were stretched, using a pendulum dynamometer, at a rate of 3 cm/min. Depending on the temperature, uniaxial film stretching caused various changes in the film structure and mechanical properties. The changes, which have a rather complex pattern, are discussed

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ACCESSION NR: AP4043778

in detail and shown in photographs. At 20C brittle breakdown takes place with the spherulites remaining practically intact. At 50-70C considerable deformation with necking occurs, but with retention of the central parts of the spherulites and their interfacial boundaries. At 120C there is very large deformation, accompanied by breakdown of the spherulites into separate fibrils. At 140C the films breakdown at comparatively low deformation (breakdown of the specimen may be accompanied by fusing down of the rupture faces). The non-simultaneous appearance of various spherulites and supra-spherulitic formations lead to differences in packing density, structure, size and mechanical properties of these elements, a consequence of which is their nonsimultaneous breakdown on stretching of the films. The decrease in sharpness of the neck boundary as the thickness of the specimens increases (other conditions being equal) is associated with the superposition of numerous micronecks formed in the separate structural elements of the film. Orig. art. has: 8 figures.

ASSOCIATION: Fiziko-khimicheskiy institut im L. Ya Karpova (Physical-Chemical Institute)

SUBMITTED: 13Aug63

SUB CODE: MT

NO REF SOV: 003

OTHER: 000

Card 2/2

"APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R001135910014-6

NADAREYCHVILI, N.A.

Treatment of hypertension by means ofotherapy of the sympathetic zones. Study in patients with malignant hypertension. MARCH 1960.

J. Internat. Karol. Inst. of Cardiology, Warsaw, Poland.

APPROVED FOR RELEASE: 03/13/2001

CIA-RDP86-00513R001135910014-6"

The solubility of strontium sulfate in electrolyte solutions
S. N. Chretshchikov and S. A. Shchegoleva, *Struktur*,
Khimi i Fiz Metallurgii i Metallovedeniya, Acad. Nauk GSSR, v. 19,
N. 10, 1973, p. 1637. *Transl. from Russ.*

In HNO₃ the solubility of SrSO₄ is increased in H₂O,
in HNO₃ at various concns. between 0.02N and 0.021N, and
with addition of variable concns. of the electrolytes KNO₃
g/l, or 8.20×10^{-4} mole/l. In HNO₃ I decreases with de-
creasing concn. of HNO₃. This effect is noticeable only at
low concns. of HNO₃. An increase in amt. of added salts
increases the I in HNO₃. However, this effect is much
weaker for Al(NO₃)₃ than for Mg(NO₃)₂. Addn. of Sr
(NO₃)₂ decreases I. A max was observed when 0.2N
Sr(NO₃)₂ was added to 0.5N HNO₃. Decreasing the amt. of
Sr(NO₃)₂ to 0.02N increases the I. Effect of different cat.
ions on the I is noticeable at lower pH. N. C.

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(Mineralogy, Determinative)